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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,814	06/23/2003	Glen C. Irvin	83672AD-W	9842

7590

04/12/2004

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EXAMINER
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KLEMANSKI, HELENE G

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 04/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/601,814

Applicant(s)

IRVIN ET AL.

Examiner

Helene Klemanski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/23/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Oath/Declaration***

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the post office address of each inventor. A post office address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The post office address should include the ZIP Code designation.

### ***Specification***

2. The disclosure is objected to because of the following informalities: the Cross-Reference to Related Applications section on the first page of the specification needs to be updated and the status for the applications discussed on pages 10 and 11 needs to be updated.

Appropriate correction is required.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: no literal antecedent basis is seen for the phrases:

(1) "wherein the functional material is a combination of a liquid and a solid" in claim 7 (page 8, lines 4 and 5 of the specification disclose that the functional material is only a solid or a liquid);

(2) "wherein the functional material is magnetic nanoparticles or semiconductor nanoparticles" in claim 10 (see page 7-9 of the specification) and

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(3) "further comprising a co-solvent " in claim 15.

The examiner suggests the incorporation of these phrases into the specification or the claims amended accordingly.

### ***Claim Objections***

4. Claim 11 is objected to because of the following informalities: in claim 8, line 5, the term "microparticles" should be replaced with the term "microparticle". Appropriate correction is required.

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of copending Application No. 10/313,564. Although the conflicting claims are not identical,

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they are not patentably distinct from each other because the claims of the present application overlap said copending claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 1-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-29 of copending Application No. 10/313,426. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application overlap said copending claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

8. Claims 1-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of copending Application No. 10/313,259. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said copending claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Claims 1-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-33 of copending Application No. 10/313,617. Although the conflicting claims are not identical,

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they are not patentably distinct from each other because the claims of the present application are generic to said copending claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 1-25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,695,980. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said patent claims and would be obvious thereby.

### ***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-3 and 5-25 are rejected under 35 U.S.C. 102(a) as being anticipated by WO 02/45868.

WO 02/45868 teaches a method for the patterned deposition of a material comprising the steps of dissolving or suspending a material such as a light emitting

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material (i.e. functional material) in a solvent phase comprising compressed or supercritical carbon dioxide and depositing the solution or suspension onto a surface wherein the solvent evaporates leaving a solid solvent-free patterned deposit of the material. The material can be small organic molecules, polymers and inorganic or organic particles such as perfluorooctyl methacrylate (i.e. functionalized polymer) aluminum quinolinol complexes, quinacridones dyes, rubrene dyes, styryl dyes, etc. The material can be in the form of particles having a particle size in the range of 1-1000 nm. The solution can further contain a co-solvent such as water and/or a surfactant such as perfluorinated polyethers. WO 02/45868 further teaches that the above solution can be used to produce a solid film or layer in an organic light emitting diode. It is the examiner's position that since the composition for the patterned deposit of a material is identical to that claimed by applicants it must be capable of forming an image on a non-patterned or pre-patterned surface. See page 4, last paragraph – page 6, third full paragraph, page 7, last paragraph – page 8, last paragraph, page 10, first paragraph, examples 1 and 2 and claims 1, 6-10, 13, 14, 17, 19, 22 and 23. The method for the patterned deposition of a material, the composition for the patterned deposit of a material and the organic light emitting diode as taught by WO 02/45868 appears to anticipate the present claims.

13. Claims 1-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Irvin et al. ('980).

The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

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under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Irvin et al. ('980) teach an imaging composition comprising a mixture of a compressed and/or supercritical fluid such as carbon dioxide and a functional material such as an organic, polymer, metallo-organic or inorganic molecule; organic, polymer, metallo-organic or inorganic nanoparticle; organic, polymer, metallo-organic or inorganic microparticles and composites thereof wherein the functional material is dissolved, dispersed and/or solubilized in the fluid. The functional material may further be functionalized by attaching fluorocarbons, siloxane and hydrocarbon functional groups to the functional material. The typical particle size of the functional material is in the range of 1-1000 nanometers. The composition may further comprise a dispersant and/or a surfactant such as fluorinated polymers and siloxane compounds. The ratio of surfactant to functional material is from about 0.1:1 to 500:1, the ratio of co-solvent to functional material is from about 0.01:1 to 100:1 and the ratio of compressed fluid to functional material is from about  $1 \times 10^5$  to about 1:20. The mixture is thermodynamically stable and/or thermodynamically metastable and is useful for forming a layer on a receiver that is free of the compressed fluid. The receiver can be any solid and can be used in an organic light emitting diode and polymeric light emitting diode display applications. It is the examiner's position that since the composition for the deposit of a functional material is identical to that claimed by applicants it must be



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capable of forming an image on a non- patterned or pre-patterned surface. See the abstract, col. 2, lines 38-57, col. 3, line 9 – col. 4, line 4, col. 4, line 63 – col. 5, line 25, example 2 and claims 1-22. The imaging composition as taught by Irvin et al. ('980) appears to anticipate the present claims.

14. Claims 1-8, 10-16 and 18-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Jagannathan et al. (US 2003/0030706).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Jagannathan et al. (US 2003/0030706) teach an imaging composition comprising a mixture of a compressed and/or supercritical fluid such as carbon dioxide and a functional material such as an organic, polymer, metallo-organic or inorganic molecule; organic, polymer, metallo-organic or inorganic nanoparticle; organic, polymer, metallo-organic or inorganic microparticles and composites thereof, electroluminescent materials, imaging dyes, ceramic nanoparticles, etc., wherein the functional material is dissolved, dispersed and/or solubilized in the fluid. The typical particle size of the functional material is in the range of 1-1000 nanometers. The functional material may further be functionalized by having hydrocarbon functional groups attached to the functional material as shown by the acid dye used in the examples (para 0083). The

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composition may further comprise a dispersant and/or a surfactant such as fluorinated polymers and siloxane compounds and a co-solvent such as water as shown by the examples (para. 0083). The mixture is thermodynamically stable and/or thermodynamically metastable and is useful for forming a layer on a receiver that is free of the compressed fluid and co-solvent. The receiver can be any solid and can be porous or non-porous. It is the examiner's position that since the composition for the deposit of a functional material is identical to that claimed by applicants it must be capable of forming an image on a non-patterned or pre-patterned surface. See the abstract, para. 0011, paras. 0016-0018, para. 0033, paras. 0036-0038, para. 0041, paras. 0062-0066, paras. 0071-0072, paras. 0083-0087 and Table 1. The imaging composition as taught by Jagannathan et al. (US 2003/0030706) appears to anticipate the present claims.

15. Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Jagannathan et al. ('630).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Jagannathan et al. ('630) teach an imaging composition comprising a mixture of a compressed and/or supercritical fluid such as carbon dioxide and a functional material

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such as an organic, polymer, metallo-organic or inorganic molecule; organic, polymer, metallo-organic or inorganic nanoparticle; organic, polymer, metallo-organic or inorganic microparticles and composites thereof, electroluminescent materials, imaging dyes, ceramic nanoparticles, etc., wherein the functional material is dissolved, dispersed and/or solubilized in the fluid. The typical particle size of the functional material is in the range of 1-1000 nanometers. The functional material may further be functionalized by having hydrocarbon functional groups attached to the functional material as shown by the acid dye used in the examples (col. 14, lines 1-15). The composition may further comprise a dispersant and/or a surfactant such as fluorinated polymers and siloxane compounds and a co-solvent such as water as shown by the examples (col. 14, lines 1-15). The mixture is thermodynamically stable and/or thermodynamically metastable and is useful for forming a layer on a receiver that is free of the compressed fluid and co-solvent. The receiver can be any solid and can be porous or non-porous. It is the examiner's position that since the composition for the deposit of a functional material is identical to that claimed by applicants it must be capable of forming an image on a non-patterned or pre-patterned surface. See the abstract, col. 3, lines 25-55, col. 4, lines 32-63, col.5, lines 1-55, col. 10, lines 1-40, col. 12, lines 4 and 5, col. 13, line 63 0 col. 14, line 15 and Table 1. The imaging composition as taught by Jagannathan et al. ('603) appears to anticipate the present claims.

16. Claims 1-8, 10-14, 16, 22 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Jagannathan et al. ('327).

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The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Jagannathan et al. ('327) teach an imaging composition comprising a mixture of a compressed and/or supercritical fluid such as carbon dioxide and a functional material such as an organic, polymer, metallo-organic or inorganic molecule; organic, polymer, metallo-organic or inorganic nanoparticle; organic, polymer, metallo-organic or inorganic microparticles and composites thereof, electroluminescent materials, imaging dyes, ceramic nanoparticles, etc., wherein the functional material is dissolved, dispersed and/or solubilized in the fluid. The typical particle size of the functional material is in the range of 1-1000 nanometers. The composition may further comprise a dispersant and/or a surfactant such as fluorinated polymers and siloxane compounds. The mixture is thermodynamically stable and/or thermodynamically metastable and is useful for forming a layer on a receiver that is free of the compressed fluid. The receiver can be any solid and can be porous or non-porous. It is the examiner's position that since the composition for the deposit of a functional material is identical to that claimed by applicants it must be capable of forming an image on a non-patterned or pre-patterned surface. See the abstract, col. 2, lines 54-63, col. 3, lines 1-35, col.4, lines 1-60, col. 5, lines 15-23, col. 7, lines 19-22, col. 8, lines 63-67, col. 9, lines 1-66 and col. 10, lines 1-

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65. The imaging composition as taught by Jagannathan et al. ('327) appears to anticipate the present claims.

17. Claims 1-8, 10-14, 16, 22 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Jagannathan et al. (US 2002/0118246).

The applied reference has a common inventor with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Jagannathan et al. (US 2002/0118246) teach an imaging composition comprising a mixture of a compressed and/or supercritical fluid such as carbon dioxide and a functional material such as an organic, polymer, metallo-organic or inorganic molecule; organic, polymer, metallo-organic or inorganic nanoparticle; organic, polymer, metallo-organic or inorganic microparticles and composites thereof, electroluminescent materials, imaging dyes, ceramic nanoparticles, etc., wherein the functional material is dissolved, dispersed and/or solubilized in the fluid. The typical particle size of the functional material is in the range of 1-1000 nanometers. The composition may further comprise a dispersant and/or a surfactant such as fluorinated polymers and siloxane compounds. The mixture is thermodynamically stable and/or thermodynamically metastable and is useful for forming a layer on a receiver that is free of the compressed fluid. The receiver can be any solid and can be porous or non-porous. It is the

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examiner's position that since the composition for the deposit of a functional material is identical to that claimed by applicants it must be capable of forming an image on a non-patterned or pre-patterned surface. See the abstract, para. 0015, para. 0026, para. 0029, para. 0032, para. 0036 and paras. 0058-0063. The imaging composition as taught by Jagannathan et al. (US 2002/0118246) appears to anticipate the present claims.

18. Claims 1-25 are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 10/313,426 which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

Copending Application No. 10/313,426 teaches an imaging composition comprising a mixture of a compressed and/or supercritical fluid such as carbon dioxide and a functional material such as an organic, polymer, metallo-organic or inorganic molecule; organic, polymer, metallo-organic or inorganic nanoparticle; organic, polymer, metallo-organic or inorganic microparticles and composites thereof wherein the functional material is dissolved, dispersed and/or solubilized in the fluid. The functional material may further be functionalized by attaching fluorocarbons, siloxane and hydrocarbon functional groups to the functional material. The typical particle size of the functional material is in the range of 1-1000 nanometers. The composition may further

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comprise a dispersant and/or a surfactant such as fluorinated polymers and siloxane compounds. The ratio of surfactant to functional material is from about 0.1:1 to 500:1, the ratio of co-solvent to functional material is from about 0.01:1 to 100:1 and the ratio of compressed fluid to functional material is from about  $1 \times 10^5$  to about 1:20. The mixture is thermodynamically stable and/or thermodynamically metastable and is useful for forming a layer on a receiver that is free of the compressed fluid. The receiver can be any solid and can be used in an organic light emitting diode and polymeric light emitting diode display applications.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

19. Claims 1-25 are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 10/313,564 which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

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Copending Application No. 10/313,564 teaches an imaging composition comprising a mixture of a compressed and/or supercritical fluid such as carbon dioxide and a functional material such as an organic, polymer, metallo-organic or inorganic molecule; organic, polymer, metallo-organic or inorganic nanoparticle; organic, polymer, metallo-organic or inorganic microparticles and composites thereof wherein the functional material is dissolved, dispersed and/or solubilized in the fluid. The functional material may further be functionalized by attaching fluorocarbons, siloxane and hydrocarbon functional groups to the functional material. The typical particle size of the functional material is in the range of 1-1000 nanometers. The composition may further comprise a dispersant and/or a surfactant such as fluorinated polymers and siloxane compounds. The ratio of surfactant to functional material is from about 0.1:1 to 500:1, the ratio of co-solvent to functional material is from about 0.01:1 to 100:1 and the ratio of compressed fluid to functional material is from about  $1 \times 10^5$  to about 1:20. The mixture is thermodynamically stable and/or thermodynamically metastable and is useful for forming a layer on a receiver that is free of the compressed fluid. The receiver can be any solid and can be used in an organic light emitting diode and polymeric light emitting diode display applications.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. This



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rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

20. Claims 1-25 provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 10/313,259 which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

Copending Application No. 10/313,259 teaches an imaging composition comprising a mixture of a compressed and/or supercritical fluid such as carbon dioxide and a functional material such as an organic, polymer, metallo-organic or inorganic molecule; organic, polymer, metallo-organic or inorganic nanoparticle; organic, polymer, metallo-organic or inorganic microparticles and composites thereof wherein the functional material is dissolved, dispersed and/or solubilized in the fluid. The functional material may further be functionalized by attaching fluorocarbons, siloxane and hydrocarbon functional groups to the functional material. The typical particle size of the functional material is in the range of 1-1000 nanometers. The composition may further comprise a dispersant and/or a surfactant such as fluorinated polymers and siloxane compounds. The ratio of surfactant to functional material is from about 0.1:1 to 500:1, the ratio of co-solvent to functional material is from about 0.01:1 to 100:1 and the ratio of compressed fluid to functional material is from about  $1 \times 10^5$  to about 1:20. The mixture is thermodynamically stable and/or thermodynamically metastable and is useful

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for forming a layer on a receiver that is free of the compressed fluid. The receiver can be any solid and can be used in an organic light emitting diode and polymeric light emitting diode display applications.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

21. Claims 1-25 provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 10/313,617 which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e), if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

Copending Application No. 10/313,617 teaches an imaging composition comprising a mixture of a compressed and/or supercritical fluid such as carbon dioxide and a functional material such as an organic, polymer, metallo-organic or inorganic molecule; organic, polymer, metallo-organic or inorganic nanoparticle; organic, polymer, metallo-organic or inorganic microparticles and composites thereof wherein the functional material is dissolved, dispersed and/or solubilized in the fluid. The functional material may further be functionalized by attaching fluorocarbons, siloxane and

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hydrocarbon functional groups to the functional material. The typical particle size of the functional material is in the range of 1-1000 nanometers. The composition may further comprise a dispersant and/or a surfactant such as fluorinated polymers and siloxane compounds. The ratio of surfactant to functional material is from about 0.1:1 to 500:1, the ratio of co-solvent to functional material is from about 0.01:1 to 100:1 and the ratio of compressed fluid to functional material is from about  $1 \times 10^5$  to about 1:20. The mixture is thermodynamically stable and/or thermodynamically metastable and is useful for forming a layer on a receiver that is free of the compressed fluid. The receiver can be any solid and can be used in an organic light emitting diode and polymeric light emitting diode display applications.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

### ***Claim Rejections - 35 USC § 103***

22. Claims 1-8, 11-15, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nielsen et al.

Nielsen et al. teach solvent-borne compositions comprising a solid polymer (i.e. functional material particles) in admixture with compressed and/or supercritical fluids

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such as carbon dioxide and a solvent such as ketones, esters and glycol ethers (i.e. co-solvent). The solvent-borne composition may further comprise other polymers, organic pigments, inorganic pigments, surfactants, decorative metal flakes, etc. See col. 2, lines 38-63, col. 3, lines 24-55, col. 5, lines 5-65, col. 6, lines 1-65, col. 7, lines 3-20, col. 7, line 57 – col. 8, lines 16, col. 10, lines 15-20, col. 13, lines 24-27 and examples 1 and 3. Nielsen et al. fails to specifically exemplify the addition of a surfactant as claimed by applicants.

Therefore, it would have been obvious to one having ordinary skill in the art to have added the surfactant as claimed by applicants as Nielson et al. also discloses the use of these surfactants but fails to show an example incorporating them.

The only limitation in the claims not found by the examiner is the particle size of the functional material. However, this limitation is considered obvious because there does not appear to be any reason why the cited reference would not contain a functional material with applicants claimed particle size.

### ***Response to Arguments***

23. Applicant's arguments filed June 23, 2003 have been fully considered but they are not persuasive.

Applicants argue that the Nielsen et al. reference composition contains an additional conventional solvent that is not a compressed fluid. The examiner agrees however, the claim language is "comprising". The term "comprising" leaves the claims open for the inclusion of unspecified ingredients even in major amounts. See Ex parte

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Davis et al., 80 USPQ 448 (PTO BD. App. 1948). Therefore, it is the examiner's position that the claim language "comprising" as used by applicants includes the additional conventional solvent as taught by Nielsen et al. Furthermore, applicants suggest in claim 15 that a solvent other than the compressed fluid can be present in the imaging composition. Accordingly, the rejection of the above claims over the Nielsen et al. reference is repeated in this application.

### ***Conclusion***

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is 571-272-1370. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on 571-272-1362. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1700.



Helene Klemanski  
Primary Examiner  
Art Unit 1755



HK  
April 5, 2004